FEDERAL SECURITY AGENCY
U. S. PUBLIC HEALTH SERVICE
NATIONAL INSTITUTE OF HEALTH
BETHESDA 14, MARYLAND

IN REPLYING, ADDRESS THE
EB & MI

1-31-49

Dear Josh—

Just rec'd your letter of 1-29.

All my E. coli mutants are derived from the following stocks:

1) ATC 9723 (Roepke's parent)
2) a purine-requiring mutant of the above (mutants have double requirement)
3) Tatum's 58 (req. biotin) — mutants have double requirement
4) a pyrimidine-requiring mutant of 58 (req. biotin + pyrimidine) (mutants have triple requirement)

None of my E. coli mutants have been characterized for a specific amino acid or vitamin, but were assigned only to amino acid group, B vitamin group, purine group, pyrimidine group by auxanogram plate technic. I was never interested much in characterizing them. I have 30-50 or so good, stable biotin mutants that have never been characterized.

I have several times as many B. subtilis mutants & my stock of these is growing by

leaps & bounds, if you know anyone (2)
who'd like any of these. I haven't been
doing any E. coli work since summer, but
have just now resumed my work on my purine-
requiring E. coli. I want to measure the P⁻→P⁺
mutation-rate on the simple medium A & the
complex medium B, so as to complete the
selection & mutation rate data. I think I have
enough selection data to publish it, when I get
the mut. rates, which should be included in
the same paper. Maybe I'll give this at the SAB
meeting, since I gave the earlier work there
last May. I also want to finish up my
stuff on effects of U.V. & X-ray on frequency of reversion
in nutritional mutants by doing it on a couple of
B. subtilis strains as spore suspensions, just to
compare with my data on the E. coli purine reg bug
& another E. coli 58 biotin and pyrimidine reg. strain.
At high dosages of U.V. & X-ray, plates of E. coli
contained purine & pyrimidine from dead cell.
Maybe with B. subtilis spore suspensions I can go
to higher dosages than with E. coli, before this
effect interferes.

I think your suggestion for a bact. genetics
conference is good. How about the Monday of the SAB meeting
at Cincinatti, just before the meeting starts? We

could perhaps even start on Sunday, if possible, & if enough guys would attend ~~the~~ What did you have in mind— a round-table discussion, or some more-or-less formal papers? & would suggest round table ~~panels~~, with 2 or 3 guys to give ~~15 min~~ 15 min ~~papers~~ + 2 or 3 guys to lead the discussion of these papers. There could be (2013) several of these, each about 2 hrs long, under such headings as:

1) phage
2) sex in bacteria
3) biochemical mechanisms in bacteria as shown by mutant strains
4) antibiotic or drug resistance
5) nuclear material ~~in bacteria~~ & nucleic acids in bacteria.

Probably you have some better ideas. Would you want to limit it to bacteria, or include yeasts & molds?

I think this is a good idea, Josh, & the proper officials planning the meeting might be consulted regarding reserving some kind of a room, if you think the

Lab meeting would be a good place for it. Let me know what you think & how I could help, & could probably get some secretarial help here, if you like to write some of the fellows who might participate in such a conference.

Another possibility that has occured to me is that the N.Y. Academy of Science might sponsor such a conference as you suggest. As you know, they've sponsored such meetings for highly specialized fields before. Yours, Bob Guthrie